

THE RELATIONSHIP OF LIFE-CRISIS EVENTS
TO SOCIAL-PSYCHIATRIC SYMPTOMATOLOGY:
AN EPIDEMIOLOGIC APPROACH

By

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This dissertation presents the report of a research project which sought to determine whether there are differential rates of social-psychiatric symptomatology among various sociodemographic groups and, if so, whether such differences can be explained by variant rates of experiencing life-crisis events (LCE).

Prior literature has found consistently an inverse relationship between socioeconomic status (SES) and measures of mental health. It has been conceptualized that this relationship may exist because persons in lower SES experience a greater number of LCE than do persons in higher SES. In addition to experiencing more LCE, lower SES groups may have fewer social-structural coping alternatives available to them. Certainly, when the predictable social pattern of one's everyday life is disrupted by an exigency, such as the death of one's child or becoming unemployed, the resources to which one has access may be an important determinant in his overall mental health.

This study approached the problem by administering a comprehensive medical-social epidemiologic interview schedule, including a list of thirty life-crisis events and three scales of social-psychiatric symptomatology, to over two thousand adults chosen by a random systematic sample in three central Florida counties. The overall instrument, including the scales of anxiety symptom, anxiety function, and depression, was developed in the prior work of Schwab and Warheit.

It was found that SES was inversely related at a significant level to having a LCE. Also, being either younger or male was directly related to LCE at a significant level. Race and residential location (rural-urban) accounted for essentially no variance in the LCE measure. Interestingly, black females as a group reported the most LCE, despite being black and female, a fact that may be explained by their generally low SES and younger age in this geographic area.

Differential rates of social-psychiatric symptomatology were found in the inverse relationship between persons' SES and their having highly symptomatic scores on all three indices. Neither race nor residential location produced significance on any of the three scales. The status of female, however, was directly related to highly symptomatic scores at a significant level on all three scales. The variable of age emerged as having an important, and unanticipated, effect on the results of this study. Developing as a conceptual conundrum, age had a strong direct relationship to general anxiety symptoms, a strong inverse relationship to anxiety function symptoms, and was totally unrelated to depressive symptoms.

Overall, both the LCE and the composite sociodemographic relationships appear to be discrete entities in the prediction of social-psychiatric symptomatology. Although there is a degree of shared variance, LCE and

SES appear to be highly influential but discrete concepts in their effect on one's mental health.

Stemming from this study are certain heuristic questions which are left for future research. They concern the concepts of: the appropriateness of the timing of an event in one's life cycle; the development of a "LCE immunity" after several experiences; the differential effects of any one event on particular groups; the separation of self-caused events, such as demotion, from externally caused events, such as the death of one's parent; and measuring the effect of LCE on people's physical health.

CHAPTER I

INTRODUCTION

Is a person's prevailing mental health affected by the experience of life-crisis events? If so, are members of some sociodemographic groups affected differently than others? This research is an effort to assess the results of the ways in which various sociodemographic groups deal with situational crises in their lives.

Individuals do not live in isolation but rather within social systems, and as such they have statuses and fulfill roles which define certain rights and obligations. In everyday life, meeting these obligations entails a specific investment of our personal selves and our social resources. Previous experiences and present options will dictate the effectiveness with which we meet current and new obligations.

When the predictable social pattern of one's daily routine is disrupted by an exigency, such as a demotion or the death of one's spouse, an event has occurred which may precipitate a crisis for the individual. Such events may create not only a stressful and conflictive situation, but they may result in the loss of financial or kinship coping systems on which one usually can rely. This kind of deprivation could leave the individual without some of the adaptation resources necessary to meet the emergency successfully. Under these circumstances a situation may require some sort of double indemnity to

preclude the occurrence of serial or concomitant crisis events. Effective adaptation may depend on the person's access to and usage of social-structural avenues available for meeting impinging personal and social demands. For particular sociodemographic groups, structural coping systems may be severely limited or totally unavailable. Furthermore, a disjuncture may separate the available coping means from the socially defined goals of effective adaptation. In the case of persons whose response repertoires provide less coping power than is needed to adequately meet pressing demands, a state or condition which has been defined as stress may develop (Dohrenwend and Dohrenwend, 1969).

Stress may act to lower the overall level of a person's social-psychiatric well-being. This may lead to a manifestation of the kinds of deviant behavior which have become associated with psychiatric symptomatology, and which have been defined in a medical-disease perspective as mental illness.

Much of the past research assessing reaction to life-crisis events has had persons estimate the degree of distress they would anticipate experiencing as a result of each specific event. In order to actually assess differential reactions among members of various sociodemographic groups, a general population survey approach is highly desirable. Therefore, a schedule of life-crisis events was included in this social-psychiatric epidemiologic study.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review is designed to provide a conceptual background for the present study. With this intent, pertinent literature is examined in the following areas: 1) life-crisis events, 2) social-psychiatric stress, 3) psychiatric symptomatology, and 4) social-psychiatric epidemiology. An integration of these subject areas is sought in order to establish a basis on which operational concepts may be founded, and to provide, as well, a context in which research results may be synthesized within a theoretical perspective.

Life-Crisis Events

An event, such as losing one's job, may become a life crisis when there is a radical resultant change in social status, accompanied by emotional distress. The degree to which the event becomes a life crisis will depend on a number of intervening variables, which may include sociodemographic group memberships, psychological well-being, concomitance of other potentially stressful events, and the extent to which adjustment to the event is normatively appropriate.

A great amount of prior research has attempted to answer questions concerned with the identifying of life-crisis events, and the quantitative measurement of both the actual events and their effect on persons involved. Events chosen for study have been similar, although the means employed for selection and measurement have varied. The value continuum

perspective of attributing goodness-badness to life-crisis events varies from one researcher to another. Interpreting resultant effects in concepts of "disruption," "transition," or "change" implies similar yet distinct perspectives. The general theme of this research has moved from a rather neutral evaluation of events to one which expresses events as negative happenings. This latter orientation was developed primarily from research in which persons estimated the probable amount of distress they would experience from possible events. Essentially, incidents studied in the research have been those which brought about acute change or disruption in the basic social patterns constituting family, marriage, employment, health, and jural areas. Thus, life events become crisis events by their acutely unpredictable nature and their potential for being a turning point in one social area of a person's life which may have overtones in other areas. For example, a demotion in employment may affect the stability of the person's family. The death of one's spouse might well preclude the bereaved person's functioning successfully in his vocational role. Or, being forced to go through bankruptcy might prove to be so disturbing that the person's physical health is adversely affected.

Early pioneering work in establishing the relationship between life-crisis events and persons' responses thereto was done by Hans Selye (1956). Working primarily at the physiological level of human functioning, he formalized the General Adaptation Syndrome. Within this model, an event becomes a crisis when it arouses subjective distress.

Other early research in the attempt to isolate and identify the incidents which should be classified as life-crisis events was conducted by Hinkle et al. (1958). Using a case study approach, they sought to determine how changes in life style had affected the overall medical-psychological

welfare of individuals. These researchers looked at life-change situations in Chinese people who had been reared in China, then had fled to the United States following a social upheaval, and were now integrating themselves into a new society. They compared the effect of stressful life-change situations with episodes of illness, as reported by their Chinese subjects, in an attempt to establish a directional relationship.

In this investigation they found that among subjects who were frequently ill, those who perceived their life situations as challenging and threatening experienced more physiological and psychological disturbances. These persons commonly viewed their lives as difficult, demanding and unsatisfactory. They had, however, the same intellectual and social accomplishments as their rarely ill counterparts, some of whom were "conspicuous failures." Those subjects experiencing a greater number of stress episodes were found to have more disease syndromes and to have a general susceptibility to illness. The means for solving problems or for coping with them was different for groups who were frequently ill than for those who were not. Some of the subjects who were frequently ill pursued goals which may have been unrealistic but which they regarded as praiseworthy and socially desirable. Those Chinese who were rarely ill viewed their lives as more interesting and varied because they had not attempted to follow any pre-planned courses in life; they were more free to pursue whatever goals and problem-solving means were most beneficial at the moment.

Hinkle and Wolff (1958), reporting on their study of the 20-year case histories of five distinct groups of workers, found that most subjects' illnesses tended to occur in "clusters" during periods of "increased environmental load with disturbances of mood, behavior, physical activity,

sleep patterns, appetite, and various bodily processes." Illnesses most frequently occurred when the subjects perceived their lives as unsatisfying, threatening, overdemanding, or full of conflict, and when they believed they could not adapt.

The conceptual transition from stressful life situations to particular life-crisis events was primarily the work of Holmes and Rahe (1967). The result was a rating scale of life-crisis events called the Social Readjustment Rating Scale (SRRS). The scale lists 43 particular events which subjects ranked in a descending order according to their perception of the amount of adjustment they thought might be necessary following each event, relative to the amount of change brought about by marriage. In this way events were classified as requiring either more or less coping than getting married. Of the 43 events used, only 6 were ranked as more stressful than marriage. Death of a spouse was ranked as requiring twice as much change as adjustment to marriage; having one's wife begin to work outside the home was rated as about one half as stressful as a marriage.

The SRRS was given a cross-cultural test when it was administered to a middle-class urban Japanese population, and to two primarily lower-class American subcultures, Mexican-American and urban Negro. The results were compared with a study done previously on a white middle-class group. All four of these populations ranked the life-change items in an essentially concordant manner. It was found that the sub-groups judged certain events to require different amounts of coping than did the white American group. Items to which the Negro subculture gave higher ratings than the other two groups were changing to a new school, and beginning or ending formal education. Both subcultures viewed a pregnancy or a change in the health of a family member as requiring greater coping than did the middle-class

Caucasian group. The overall assessment seemed to indicate that one's relative social class position was more influential than one's particular culture. A pertinent conclusion from the work of Holmes and Rahe stated that life-changes, whether resulting from a happy or sad event, whether socially desirable or not, produced similar results: when an individual had accumulated a certain number of life-crisis units (SRRS) he had a direct linear probability of becoming ill. Although this research contributed useful cross-cultural comparisons, it would have been strengthened by the inclusion of a lower-class white group for analysis.

Several investigators have conducted research projects on a relatively small scale in the same subject area. Spilken and Jacobs (1971) examined a group of college students, in an attempt to predict who would seek medical treatment for illness, based on a record of their unresolved life stress. A somewhat different dimension was introduced in the study by Thurlow (1971), who concluded that a person's subjective appraisal of social change in his life may be more closely related to his illnesses than the actual events as seen from a more objective viewpoint. Coddington (1972) studied a group of children, in order to assess the relative value and rank order of different traumatic incidents in a child's life. Mendels and Weinstein (1972) undertook an independent ranking of the schedule of events used by Holmes and Rahe (1967). A correlation of 0.93 in comparing the two lists of events indicates the strong reliability of the original work, although the authors suggest that the instrument would be more valuable for studying groups than individuals. Using a modification of Holmes and Rahe's Schedule of Recent Experiences, Cochrane and Robertson (1973) developed a new instrument, "The Life Events Inventory," which contained fifty-nine additional events chosen to provide greater consistency

of type. The relative position of items in the list remained constant across the responses from three disparate groups of subjects. In 1973, Halpern instigated a project which proposed to clarify the meaning of the concept of crisis through administration of an instrument designed to measure behaviors of persons in crisis situations.

Whereas Holmes and Rahe dealt primarily with susceptibility to somatic illness, the work of Paykel et al. (1971) provides a transition to an assessment of the effect of stressors on social-psychiatric impairment. Modifying the SRRS events, Paykel rephrased some questions in an attempt to decrease class bias, and eliminated items which might reflect symptoms in their definition. This research did not use an event as a comparison (such as marriage in Holmes and Rahe). Subjects were asked to rate events according to the degree of upset each would produce in the subject's life.

The rankings of the events showed that the following were perceived by those sampled as being most stressful: death of child, death of spouse, jail sentence, major financial difficulties, business failure, and divorce. Those ranking low included move in same city, promotion, begin education, wanted pregnancy, and child married with parental approval. The lower ranking items involved moderate life-change and readjustment, and, as can be observed, were positive or desirable events. Thus, Paykel, in contrast to Holmes and Rahe, found that non-desirable events were greater "stressors."

Paykel's use of a selected sample of convenience--213 psychiatric patients and 137 members of their families--may have invalidated his assertion that sociodemographic factors had no impact on the effects of life crises. The psychiatric involvement of all the subjects made for a unifying variable which may have precluded the possibility of the results

showing any significance in sociodemographic variables. Thus, all depressed individuals, whether young or old, black or white, may perceive their reactions to a particular stressor as being similar.

An extension of prior research into stress, going beyond the stage where subjects rated the impact of stressors, was conducted by Myers et al. (1971). This longitudinal, two-year research also provided a transition into psychiatric epidemiology studies. Investigating 938 persons in the urban catchment area of the New Haven, Connecticut, Community Mental Health Center, Myers and his associates delineated life-crisis events into social categories: 1) education related; 2) relocation, moved; 3) marriage; 4) family; 5) interpersonal; 6) health; 7) work; 8) finance; 9) legal; and 10) community crisis. Further grouping included classification under entrance-related events (marriage) and exit-related events (divorce). A third category was formed by deciding whether the event was desirable (promotion) or undesirable (demotion), as defined by the general society value structures. The seven independent variables included race, sex, age, marital status, religion, social class, and the number of persons living in the household.

In this research the measurement of "strain" was carried beyond a self-rating scale to incorporate a list of twenty psychiatric symptoms developed by MacMillan (1957) and Gurin et al. (1960) to assess psychological symptoms in a national population in 1965. Using this scale, the Myers research planned to appraise the number of life events which occurred in a person's life during the year prior to administration and scoring of the scale. It was found that the greater the number of life events experienced by a subject in the previous year, the greater the probability of his being impaired psychologically.

Two years later, in a follow-up stage, 720 persons from the original sample were reinterviewed. Subjects were again asked to list the life-crisis events which had occurred during the previous year. The findings indicated that in the life of people who reported an increased number of life events during the more recent period there was a worsening of psychological symptoms; symptoms improved for persons who reported fewer events. Individuals with higher symptom scores on the first measure did not seem to have experienced more events in the interim period, but probably had more events prior to the first measurement.

Findings illustrate the vital connection between the individual, the quality and quantity of events which affect him, and the surrounding culture which in varying degrees sustains and reinforces him. The influence a person has over his experiences also seems to be an important element in relation to his mental status. There is a strong association between the amount of control an individual can exert over catastrophic events in his life and the degree of his impairment.

An exit event may be said to entail the departure of a person from an individual's immediate social field, as would result following a marital separation or the death of one's child. Either of these would have the potential for greater influence on impairment than would marriage or the birth of one's child, which could be designated as entrance events. This viewpoint emphasizes the importance of object loss in explaining psychopathology in our culture, and suggests that there is a hierarchy of role transformations with respect to psychiatric symptoms. The rituals provided by our society to help an individual endure a loss are mainly in the form of denial. Paykel et al. (1969) described our systems of social

and interpersonal support as dealing with social gain rather than with social loss. For example, marriage ceremonies are quite complex institutionalized rituals in contrast to the stark simplicity of a divorce proceeding.

The concept of loss, whether social or psychological, literal or symbolic, has been a dominant theme in psychiatric literature since the times of Freud (Paykel et al. 1969). It may be conceived as man's mourning for what he has lost of himself or of what he lost from his emotional investment in others. The relationship between depression and life-crisis events was studied by Paykel et al. (1969). Their experimental sample consisted of 185 mental health care patients identified as "depressed," and their control sample was comprised of 938 randomly selected members of the community. It was found that in contrast to the general population, the depressed patients had experienced a significantly greater number of exit events than entrance events.

This study had two major weaknesses. The depressed sample was comprised mostly of persons from the lower socioeconomic status (SES), a stratum of society in which depression rates have been typically higher (Dohrenwend and Dohrenwend, 1969). Thus, the depression which stemmed from life-crisis events is difficult to separate from SES influence. Secondly, the control group, which was not assessed for depression, may have included some depressed persons.

Social-Structural Considerations in Adaptation to Life-Crisis Events

A social system has prescribed certain expectations for its members in connection with the statuses they hold and the roles they fulfill, but

under some circumstances persons may depart from institutionalized expectations. Such deviations are not to defined as good or bad, in an evaluative sense--they are merely the occurrence of non-normative behavior.

Also, in the present research, whether the behavior is functional or non-functional for society is not the primary issue. Although persons may have been appropriately and adequately socialized, they may be confronted in times of crisis with conflicting expectations which exceed their capacity to handle successfully. One way persons may relieve the strain generated by conflicting demands is to deviate from institutionalized expectations (Bredemeier and Stephenson, 1962). A conflict in expectations, or even the desire to deviate, does not necessarily result in deviant behavior. Within a social context, individual personality differences may exist in the degree to which persons can tolerate conflict. Of sociological importance are those structural conditions which tend to produce strain sufficient to result in deviance among various groups of people--conditions that tend to produce differential rates of deviation.

When they experience life-crisis events, people are exposed to disjunctures in their social structures as they attempt to meet new, changing expectations for their status-sets and role-sets. In this framework, persons will be subject to varying degrees of strain, determined largely by the effectiveness of their individual efforts to reconcile and coordinate the various demands imposed by their social-sets, since all persons occupy more than one status located within different systems. With role being defined as the dynamic part of a status, it can be seen that status may be presented with conflicting references for behavior. In addition to structural strains resulting from conflicts among statuses in a status-set, any particular status,

such as being a parent or an employer, may confront the individual with greater demands than he can successfully cope with. Some individuals may not have the physical or personality characteristics required by the status they are supposed to fulfill. If status-expectations are based on attributes which all status holders are presumed to have, but which are possessed by only certain members, the remaining members will achieve normative standards only at the cost of severe strain. Excessive demands will mean that some members will experience failure. Such strain may result in a deviant adaptation to the status, and the strain from attempting to meet expectations may be expressed in deviant behavior in another status (Bredemeier and Stephenson, 1962).

For particular sociodemographic groups the institutionalized means to fulfill normative status expectations may be unavailable, ineffective, or differentially distributed. Persons may find they are unable to conform in one status because a contingent status does not provide the necessary resources. Discrimination in the allocation of resources for meeting expectations may result in differential patterns of deviant behavior.

Consequently, following a life-crisis event, a person may find himself with changed status and role-expectations. An event which affects a person's employment may, in turn, alter his family status, possibly precluding clarity and consistency of status. For example, a migrant farm worker whose statuses include being a husband and father, a Mexican-American with minimal education, may have to undergo a radical rearrangement of home and work roles after experiencing a disabling accident. The life-crisis event may create a disjuncture between one's resources

and obligations, both personal and social.

The ensuing discussion of the social-psychiatric stress model provides a background for understanding the social and personal demands imposed by a life-crisis event and the resources needed to meet these demands.

Social-Psychiatric Stress Model

Social stress has come to be defined essentially in three ways:

1) as demands upon the person; 2) as the discrepancy between total demands upon the person and his ability to meet these demands; and 3) as demands being defined as stress and one's reaction to stress as strain.

In general, the following models rely on a mechanistic basis in which stress is defined as internal response to an external load placed upon it by some pathogenic agent, stressor, or life crisis, with a resultant development of pathological changes and disorders manifested in a specific manner.

Much research assessing the relationship of stress to illness dealt with psychosomatic reactions and specific physiological changes produced by stressful stimuli. Grinker and Spiegel (1945), Dunbar (1947), and Alexander (1950) attempted to measure a change in cardiac functioning due to the occurrence of stressful stimuli. Also dealing with reaction to stress, Wolff and his associates (1950; 1953) developed the Protective Reaction Pattern concept in which adaptive feelings, bodily adjustments, and altered behavior are occurring simultaneously and in varying degrees. This simultaneous view in Wolff's conception differs from the prior

psychosomatic model which had sequential stages.

Research developed from an examination of the effect of particular stressful stimuli on one person, to a consideration of the physiological response of groups of persons to singular traumatic events, such as a disastrous storm or confinement in a concentration camp.

Janis (1954) developed a stress approach dealing with individuals' responses to disasters. He outlined three stages through which an individual may progress: 1) threat-perception phase; 2) danger-impact phase; and 3) danger-of-victimization phase. Essentially, the type of response a person will make depends upon his perception of the event and his previously formed expectations concerning behavior in threatening situations. These perceptions are integrated along with a self-conception of one's social role in emergencies, one's association with the groups being threatened by danger, one's social status, personality variables, and prior training.

Bruce Dohrenwend (1961) modified Selye's (1956) physiological stress model by emphasizing the mediating action of external constraints associated with stress, and those factors which determine the amount of inner constraint. He considered that stress was a behavioral product resulting from pressure, whether this pressure arose from adaptive or maladaptive behavior. Using this conceptualization, Dohrenwend proposed a list of five factors which determine stress reactions: 1) the external stressors which throw the organism into an imbalanced state; 2) factors that alleviate or mediate the effects of the stressor; 3) the experience of stress itself, which is the interactional product between the stressor and the mediating factor; 4) the General Adaptation Syndrome, consisting

of the organism's attempt to cope with the stressor; and 5) the organism's response. The stressful period is the state intervening between antecedent constraints and consequent attempts to reduce constraint.

In an effort to explain graduate student adaptation to qualifying examinations, Mechanic, in 1962, sought to operationalize the concept of "coping." He explained coping as the instrumental behavior and problem-solving capacities of persons in meeting life demands and goals. The coping process, he said, is an active one, involving the application of particular skills, techniques, and knowledge. When coping is defined as a sociological process interrelated with one's social situation, it is contrasted to defense mechanisms which deal with an internalized psychological process. Although Mechanic (1962) initially defined stress within terms of the discomforting responses of persons in particular situations, in 1968 (p. 301) his definition of stress was "a discrepancy between the demands impinging on a person--whether these demands be external or internal, whether challenges or goals--and the individual's potential responses to these demands."

Langner and Michael (1963) added a new dimension to the existing stress models by integrating a separate "non-coping" concept of strain. In their work the environmental demands on a person are defined as "stress," and the degree of non-adaptive coping to these demands as "strain." Langner and Michael's word strain corresponds to Wolff's and Selye's word stress. Langner and Michael proposed that as the number of environmental stresses increases, the amount of strain increases. If too much strain exists, a person's homeostatic level may be lessened to such an extent that severe mental impairment may

result. The conceptual difference between stress and strain is helpful in explaining how time works as a variable in coping. A stressor may be acute, as would be the death of one's child, but the strain produced may persist long after the stress has ended. The question involved in Langner and Michael's work is whether or not the behavior used in coping is adaptive, that is, behavior which helps maintain a person's homeostatic balance. These researchers claim that reaction to stress is never wholly adaptive nor totally maladaptive, but that it results in a compromise involving some sacrifice in terms of personality functioning. Each compromise, each index of strain is usually called a symptom, and an accumulation of symptoms, occurring with frequency or in a particular pattern, is defined as a type of psychiatric symptomatology. Social-psychiatric symptoms, initially conceptualized in the disease model, are included in the social stress model as indications of strain. In and of itself, strain may create new stress in a potentially cyclical problem.

In this theory, it is emphasized that the stress model is an aggregate one explaining the average reactions of a large group of persons. Consequently, Langner and Michael (1963) found that the average amount of strain was higher in those persons who reported multiple stresses than those reporting only one, although individuals reacted differently within groups.

The relationship between stress and strain is not a direct linear one, but is mediated by intervening variables, such as hereditary predisposition, past experiences in crises, and sociodemographic variables.

Strain is primarily mediated through the accumulation of the person's social, physical, and emotional experiences.

Since stress situations originate in the social environment, a person's location within the social system may determine the number, kind, and intensity of stressors to which he will be subject. Predisposing and precipitating factors are conceptualized as an etiological portion of this model. As a result of social stress events which act as precipitators, a person may manifest coping behavior. In a sense, if the precipitator produces strain it is generally defined as a stressor. Symptoms of distress, such as intense anxiety, exemplify strain within this model.

In Langner and Michael's model, socioeconomic status comprises a part of both the environmental stress and the support systems. SES plays an important role in the kind and severity of the reaction one has to stress. It is a separate filter, attached to both stresses and supports. Therefore, SES filters and influences any interaction between the personality and the stressful or supportive environment.

The Societal Reaction Approach to "Psychiatric Symptoms"

An important aspect of the societal reaction perspective addresses the question: "Who, for what behavior, is 'labeled' by whom as deviant?" In this perspective, the residual deviancy concept of Scheff (1966) suggests that "mental illness" is any rule-breaking behavior which cannot be categorized conveniently under such headings as "crime" or "sin." In this case, "mental illness" as one category of residual deviance provides a catch-all for some ideopathic norm breaking. Any unusual

behavior not already explained in some other conceptual system is classified here.

Overall in the labeling perspectives, those who define and informally label the deviant as being mentally ill are peer groups, parents and friends, while social control agents such as police, psychiatrists, and psychologists designate formal, more jargonized labels. Labels which contrast as drastically as "sick" and "criminal" may be applied to identical behavior depending upon various social contingencies facing both the labeler and the labelee. More specifically, the contingencies leading to labeling were proposed by Scheff (1966). He believed that the strength of societal reaction is determined by the amount and visibility of the rule-breaking; secondly, by the power the rule-breaker can exert in the community, as well as the social distance between him and those who are in charge of social control; also, by the level of tolerance in the community, and the number of non-deviant roles available. After formal labeling, society may prohibit the deviant person from shedding his label and thus prevent him from reentering non-deviant roles. It is the privilege of those with power to determine what behavior is in their best interests. Behavior, so defined, comes to constitute appropriate behavior for the social system. In the Kitsuse (1962) conception, it is not the form of the behavior, but the societal reaction which is important; as in the words of Erickson (1962), it is the social audience who defines deviance.

The deviancy perspective has not developed without criticism. Gibbs (1966) and Gove (1970a; 1970b) have been two substantial critics.

Gibbs has suggested that there had been no systematic examination of the deterrent quality of the societal reaction approach. Deviancy research, reviewed by Gibbs, has emphasized reaction as a means of identifying deviant behavior. He raises the question of why the incidence of a "deviant" act varies among populations, and states that the deviancy perspective does not explain why some persons commit the act while others do not. Moreover, he suggests that the question of cross-cultural variance in the definition of deviance has not been fully answered by deviancy theorists. Gibbs feels there are inconsistencies in deviancy theory. For example, is "secret behavior," an act not observed by a social audience, to be considered deviancy?

Gove (1970b) argues that Scheff's societal reaction explanation in particular is incorrect because a complex screening process insures that only extremely disturbed persons actually are hospitalized for mental illness, and this only after their situation becomes untenable to society. In 1974, Scheff responded with a review of pertinent research which suggested that the screening process is less delineating than was purported by Gove. As part of the process, potential "labelers" may feel threatened by the responsibility involved in denoting cases of mental illness. Gove (1970a) suggested that the label accompanying secondary deviance is not as difficult for the formerly "mentally ill" person to shed as is claimed by labeling theorists.

Conversely, Turner (1972) proposed that in some instances persons will seek the deviant role to avoid personal and social commitments which they are unable to meet, or do not choose to meet. This would

suggest the possible desirability of continuing the "mentally ill" role.

Fletcher and Reynolds (1967) have also stated that residual deviance has not been shown to refer to a "significant class of empirical behavior," and has not been linked in a causal manner to the labeling process. An important intervening variable in the perception of the labelers is the degree of responsibility the potential labelee has over his own behavior.

These researchers, in general, have not fully explained the initial cause of the mentally ill behavior in their discussion of the societal reaction approach. Importantly, this perspective deals with a role as it is defined by others, versus a degree of distress as defined by the person involved.

Medical Model of Psychiatric Symptoms

The medical model has been developed and nurtured by psychiatrists as they have sought to explain mental illness, and has remained the primary framework in their treatment of the "mentally ill" patients. Lewis (1953) explains the disease model as a theory in which illness does not have social content, only a social context. According to Taber (1969) the disease model consists of four conceptual stages: 1) nosology--qualitatively different states of disorder exist and can be recognized; 2) pathology--there is an illness process within the organism persisting over time; 3) etiology--there is a causal agent and a causal sequence involved; and 4) therapy--various therapeutic treatments can be effective. As stated in this model, there are symptoms forming a disease construct which can be treated to render

the organism normal. Explicitly assumed within the disease model is a homeostatic level in which a bodily energy system functions, channeling energy to areas presently requiring these resources to maintain an overall integrated balanced system. Thus, a depressed person has a fundamental flaw caused by the existence of a physiological imbalance which impairs his behavioral functioning. The impact of the disease model has been so pervasive that "mental illness," the term coined to describe the pattern of "disease" symptoms for this model, has lingered as the dominant theme in our public policies and lay explanations.

The disease model has been strongly criticized for establishing criteria of physiological normalcy. Because it is based on physiological malfunctioning, the disease model discounts the influence of the social environment. It is a model dealing with "predisposition" to illness rather than "precipitation" of illness. As a polemical reaction to the disease model, psychiatrist Thomas Szasz (1960) proposed another perspective. In his view, true mental illness must originate in physiological disorders. All other types of behavior which have been classified under the disease model as "mental illness" are merely deviations from psychosocial, ethical, or legal norms.

Social-Psychiatric Epidemiology

The epidemiologic approach was developed within the medical model to assess the causes, types, and frequencies of physical disease which occur in a population. Since the early work in social psychiatry was also based on the medical-disease model, an epidemiologic approach provided the means of looking at differential rates of symptomatology among various sociodemographic groups.

Most past literature concerning the etiology of social-psychiatric symptoms in populations has been of an epidemiologic nature. Researchers have sought to explain the differential distribution of symptomatology through a demographic analysis combined with the prevalence rates of symptoms.

Histories of life-crisis events have been used as a tool in medical epidemiological research. Antonovsky and Kats (1967) studied the relationship of life-crisis events to multiple sclerosis. They found that persons with multiple sclerosis had experienced a concentration of life-crisis events. The experimental group in this study were multiple sclerosis patients, and the control group consisted of a sample from the general population. Again, a problem with the research is that ill persons may selectively remember more events and thus provide a response bias, but this and other research by Spilken and Jacobs (1971) suggests that ill persons do not report more events. Spilken and Jacobs conclude that somatically and emotionally ill persons were not more likely to increase reports of life-crisis events. It is not the frequency of events experienced which differentiates the ill from the non-ill, but their personal reaction to the events. It is suggested that the experience of life stress leads to higher rates of seeking treatment for symptoms, rather than leading to differential rates of illness. They conclude that an individual may be stimulated by life-crisis events to seek help and, in so doing, he comes to be defined as more symptomatic than another person who is as symptomatic but who

has not experienced an event.

In the measurement of the frequency of psychiatric symptoms within a population, the Dohrenwends (1969) reported on a review of research done in forty-four epidemiologic studies which indicates that usually it was anxiety symptoms which were being measured. In no instance, prior to Myers' work, were life-crisis events included as possible etiologic agents.

Epidemiologic studies measuring the distribution of mental illness in populations have been of two types: a rates-under-treatment study, in which those persons on record as receiving treatment were evaluated by sociodemographic variables; and a survey instrument including questions generally defined as measuring mental impairment and often validated on known psychiatrically impaired populations. The disadvantages of rates-under-treatment studies are 1) that persons in the community will be referred to treatment facilities and selectively reported by these facilities, then labeled selectively by mental health professionals; and 2) that sociodemographic variables are not assessed until after the labeling process has been completed. Surveys have been challenged on the content validity of their questions, on the possible bias of responses by interviewees toward socially acceptable responses, and on their measurement, in most instances, of prevalence without incidence (the number of new cases within a given period).

To some degree there is a conceptual conundrum in the question of whether the measurement of constructs is preferable to the measurement of symptom frequency. The study by Warheit, Holzer and Schwab (1973) produced one central conclusion concerning the relationship of SES to

psychiatric impairment: the highest prevalence rate of mental illness is found in the lower social classes. This conclusion to the nature-nurture issue has spawned two competing hypotheses in explanation:

- 1) biologically inferior persons drift down the social ladder; and
- 2) the stress of living in lower SES causes impairment. ("Stress" in this instance refers to structural stress rather than life-crisis stress.)

The coping process which results will depend to some degree on the availability of structural opportunities. Blocked structural opportunities may lead to personal strain or social-psychiatric symptoms. This finding of higher prevalence rates in lower socioeconomic classes has been upheld cross-culturally. Dohrenwend and Dohrenwend (1969) concluded that the relative importance of genetic and social environments remains essentially unknown. They also suggest that symptoms are more likely to be supported by secondary gain in the lower social classes. Another conclusion from their review is that symptoms persisting only as long as the situational pressures continue or in the presence of secondary gain are probably primarily of social origin, whereas symptoms persisting in the absence of secondary gain and regardless of the social situation are probably of genetic origin.

An important conceptual theme, emphasized by the Dohrenwends from their work and the work of others, has designated social class and other demographic variables as external mediators of the social situation. Since then, refinements in this field tend to both support and contradict these conclusions. The most recent and largest epidemiologic study, reported by Warheit, Holzer and Schwab in 1973, has resulted in a number of distinctions in the measurement of anxiety, depression, role impairment, and general psychopathology. Their findings show that

SES is inversely proportional to social-psychiatric prevalence rates. The study reports that in many cases the differences between people cannot be attributed to race. If whites and blacks of any one social class are compared, there are no major distinctions in their psychiatric impairment rates when controlled for social class.

In the previously mentioned work by Myers et al. (1972), life-crisis events were found to be more predictive of impairment than were sociodemographic variables. This may suggest that where earlier epidemiologic research reported an inverse relationship between sociodemographic variables and psychiatric symptoms, it was actually measuring reactions to life-crisis events which may have been influenced in terms of occurrence and reaction by sociodemographic variables.

The research which is being reported presently is, therefore, an extension of the work covered in this review of literature. The study is an effort to clarify the relationships between life-crisis events and social-psychiatric symptomatology.

CHAPTER III

METHODOLOGY

The research literature has suggested that sociodemographic group membership may provide social content for psychiatric symptoms and life-crisis events as well as the social context for their occurrence. As a means of operationalizing the potential psychiatric reaction of different sociodemographic groups to life-crisis events, the following procedures for formulating and testing of hypotheses were conducted.

Formulation of Hypotheses

Since it has been established by prior studies that an inverse relationship exists between SES and psychiatric impairment, it is important to substantiate this finding, and to determine the degree to which SES and life-crisis events, separately and through interaction, explain psychiatric impairment. It is important to determine whether a person's membership in a particular SES group will predicate a greater number of different types of life-crisis events. The experiencing of a greater number of events by a particular sociodemographic group, combined with their having limited access to structural coping alternatives may be directly related to psychiatric impairment. There may be an interaction between the recency of a person's experiencing a life-crisis event and the number of different types of events he has experienced which will result in a strong direct relationship to his psychiatric symptomatology.

- Hypothesis 1. There will be no difference in the number of different types of life-crisis events experienced within the past year by:
- a) persons of various ages
 - b) persons of different races
 - c) persons of different sexes
 - d) persons from different residential locations.
- Hypothesis 2. The number of different types of life-crisis events experienced by persons during the past year will be inversely related to their SES.
- Hypothesis 3. For various sociodemographic groups, there will be an inverse relationship between persons' SES and the degree of social-psychiatric symptomatology they exhibit.
- Hypothesis 4. Within various sociodemographic groups, there will be a direct relationship between the number of different types of life-crisis events persons experienced and the degree of symptomatology they exhibit.
- Hypothesis 5. Within various sociodemographic groups, there will be a direct relationship between the recency with which persons have experienced life-crisis events and the degree of social-psychiatric symptomatology they exhibit.

Operational Procedures

1. Life-Crisis Events

As this present research was a substudy of a large survey, it was important to maintain brevity in each section of the instrument to prevent the entire questionnaire from being unwieldy. Therefore, as a means of parsimoniously assessing the number of different types of events which members of various sociodemographic groups may have experienced, the thirty most "upsetting" events as determined by Paykel et al. (1969) were included in the survey. These events included those which have been generally defined and empirically verified as being life events generally constituting a crisis. The events were

developed in an ordinal relationship form rather than the ratio scale format assumed by Holmes and Rahe (1967). It is believed that the specific events chosen for this present research necessitated an involved intrapersonal and structural coping process, and enabled the measurement of differential group reactions to crises.

2. Sociodemographic Variables

Sociodemographic variables included in this study were: a) age, b) race, c) sex, d) education, e) occupation, f) income, g) rural-urban residence, h) SES (comprised of education, occupational prestige, and income).

The SES measures used in this study were based on the Schwab-Warheit procedure. This procedure entailed a combined percentile score for each person's ranking on the three components.

3. Social-Psychiatric Symptomatology

This study made use of slightly modified versions of three Schwab-Warheit scales: a) anxiety symptom scale, b) anxiety function scale, and c) the depression scale. These indices were developed to provide a normative description of the distribution of psychiatric symptomatology in the population rather than to diagnose individuals. Specifically, these scales are designed to measure clusters of symptomatology considered to be components of psychiatric disorder, but not to measure psychiatric disorder at the construct level, as described in the DSM-II: Diagnostic and Statistical Manual of Mental Disorders (1968).

Supporting evidence of their content validity was provided by the following:

- A. The items included were drawn from the psychiatric literature
- B. The items were examined by a panel of experts and their content was judged to be appropriate
- C. Factor analytic procedures empirically confirmed their grouping into scales
- D. The scales had an acceptable level of internal consistency as measured by Cronbach's Alpha (1951).

As an assessment of construct validity, the indices have been administered to a sample of several hundred persons who had manifested a degree of symptomatology which required their being hospitalized.

4. Survey Sampling

In a tri-county area of central Florida, 101,219 households were found to comprise the population of potential respondents for this study. Taking a systematic random sample of slightly under 2.5% yielded 2,400 potential respondent locations in the total list of households. Through the use of the Kish (1965) procedure, one respondent 18 years of age or older was selected to be interviewed from each household.

The refusal rate was 7.56%, and the rate of unlocatable respondents was 4.4%, even though interviewers were instructed to call upon a selected household three times, if necessary. As many as twelve attempts were made, however, to contact some respondents for an interview because a household could be reassigned to different interviewers. Unoccupied residences were replaced by a random selection of a neighboring residence to the right or the left.

This systematic multi-stage cluster probability sample resulted in 2,029 persons being interviewed, about 1% of the adult population. A sample of this size resulted in a sampling error of approximately 1% for observed percentages around 5% or 95% (Kish, 1965).

5. Survey Implementation

After gaining support of key leaders and organizations to legitimize the study in the community, the next stage was selection of interviewers. The twenty-person interviewing staff was composed of males and females, Caucasians and Negroes, ranging in age from college students to retirees, although the majority were middle-aged white women. The decision to emphasize employment of persons in the last category was based on prior experience with the 1972 Schwab-Warheit study, which suggested that such a group would be optimal interviewers. All were involved in a training workshop to increase their effectiveness and to reduce response bias.

6. Survey Processing

Since some errors in coding, keypunching, and SPSS format were expected, a rigorous verification process was undertaken which took several months to complete.

7. Data Analysis

Testing the hypotheses is the fundamental aspect of a research study. An analysis of variance procedure was used to assess the degree of variance within and between various sociodemographic groups in the number of different types of life-crisis events experienced, and in the degree to which these groups differed on the measures of social-psychiatric symptomatology. A stepwise multiple linear regression equation was used

to test the simultaneous effect of different sociodemographic groups on the amount of variance in scores on the three indices of psychiatric symptomatology.

CHAPTER IV

FINDINGS

This chapter presents the results from the hypothesis-testing stage of this research, while attempting to provide the conceptual transition for a broader overview and integration of the findings in the subsequent, and concluding, chapter.

Testing of Hypotheses

Hypothesis 1. This hypothesis, stated in null form, examined the relationship between the number of different life-crisis events (LCE) experienced within the past year and a respondent's age, race, sex, and place of residence.

- a) Age - This hypothesis was rejected. As may be seen in the table concerning this information, the age groupings of 16-22, 23-29, 30-44, 45-59, and over 60 yielded a variance which was statistically significant at the .001 level. The relationship is an inverse one, with persons in the two youngest age categories experiencing the most events. In a stepwise multiple linear regression analysis, age was also inversely related to the number of events experienced, and was significant at the .001 level. This latter process analyzed the concomitant unit change in LCE, accounted for by the unit change in age, while holding the other independent

variables constant.

- b) Race - This hypothesis was accepted. Using a multiple linear regression model, in which race was a "dummy" variable, the F value of .061 at 1 and infinite degrees of freedom was not significant. As a further analysis, race-sex was compared in an analysis of variance procedure. Results showed that black females experienced the most events, and that the degree of variance was significant at the .001 level. Adding the interactive term black-female to the stepwise multiple linear regression equation, which consisted of SES, age, black, female, and rural residence, did not account for a significant amount of variance beyond that which was already accounted for by the other variables.
- c) Sex - This hypothesis was rejected. The status of being female was found to be inversely related to the number of events experienced. In the regression model, the standardized partial beta for female was -0.05172 with an F of 5.021 at 1 and infinite d.f. which was significant at the .05 level. It appears in this hypothetical model that males experienced more types of LCE when age, SES, race, and residence are held at their mean values.
- d) Rural-urban residence - This hypothesis was accepted. The standardized beta of -0.02595 and the F of 1.418 at 1 and infinite degrees of freedom was not significant. The F of 0.2538 at 3 and infinite degrees of freedom was not significant for an analysis of variance of residence.

Hypothesis 2. This hypothesis predicted in research form an inverse relationship between the number of different LCE experienced by persons

and their SES. This hypothesis was accepted. An analysis of variance among five SES categories found a significant inverse relationship. The F was 2.7448 at 4 and infinite degrees of freedom. This F value was significant at the .05 level. In the stepwise multiple linear regression analysis, the standardized beta was -0.13938 with an F of 32.788 at 1 and infinite degrees of freedom. This F value was significant at the .001 level. This equation was composed of age, race, sex, and place of residence.

An analysis of variance comparing the components of SES yielded the following results. The education component analysis of variance resulted in an F value of 3.1686 at 4 and infinite degrees of freedom. This F value was significant at the .05 level.

An analysis of the income component resulted in a finding that there was not a significant degree of variance among the five educational levels. The F was 2.0326 at 4 and infinite degrees of freedom.

The occupational prestige variable (Pres5) yielded an F level of 5.8244 at 4 and infinite degrees of freedom. This result was significant at the .001 level.

In the regression analysis in which SES, age, and race were held constant, an interesting relationship emerged. It was the negative standardized beta value of -0.5172 for females with a resulting F of 5.021, significant at the .05 level.

These findings suggest that being male is more closely related to the experiencing of a LCE than is being female. However, it may be that being both young and in a lower SES are far more important

factors in the experiencing of LCE than are one's sex or race. Although maleness is associated more strongly with having events, and although being black is not significant, black females did experience the most events.

Hypothesis 3. This hypothesis predicted an inverse relationship between persons' scores on the three scales of social-psychiatric symptomatology and their SES. Scores on each of the indices were analyzed relative to SES. The proposed inverse relationship was supported.

- a) Anxiety Symptoms - The relationship between anxiety symptoms (ANX) and SES was significant in the inverse direction. As can be seen in the appendix, the analysis of variance procedure resulted in an F score of 51.5803 at 4 and infinite d.f. This finding is significant at the .001 level. Scores for the components of SES became education, $F = 33.5526$ at 4 and infinite d.f. (significant at the .001 level); occupational prestige, $F = 17.1817$ (significant at the .001 level); and income, $F = 40.5838$ (significant at the .001 level).

The multiple linear regression analysis, which controlled for the other sociodemographic variables and life-crisis events, yielded supportive results. Education, with a $-.15260$ standardized beta, had an F score of 31.815 at 1 and infinite d.f. (significant at the .001 level). The income standardized beta was $-.10641$, yielding an F score of 17.323 at 1 and infinite d.f. (significant at the .001 level). Occupational prestige yielded a standardized beta of $-.04169$ with an F score of 2.580 which was not significant.

- b) Anxiety Function - This section examined the relationship between persons' SES and their inability to function in social roles. The analysis of variance procedure yielded an F of 4.1121 (significant at the .001 level for 4 and infinite d.f.), supporting the concept of difference among SES quintiles. For the components of SES, the following values were obtained for 4 and infinite d.f.: education, $F = 2.7905$ (significant at the .01 level); income, $F = 5.0153$ (significant at the .001 level); and occupational prestige, $F = 4.7783$ (significant at the .001 level).

In the regression analysis, controlling for the other sociodemographic variables and life-crisis events, as may be seen in the appendix, the standardized beta for SES was $-.09887$ yielding an F score of 16.859, significant for 1 and infinite d.f. at the .001 level. A component analysis of SES resulted in rather interesting findings. The F scores for each component were not significant. The standardized betas were all inverse, and the F scores for the components were education, 2.066; income, 3.515; occupational prestige, 2.407.

- c) Depression - A depression scale was the third measure of social-symptomatology to be analyzed, supporting the hypothesized inverse relationship between persons' depression scores and their SES. An analysis of variance procedure relating the five SES quintiles yielded a significant F value of 35.8979 at 4 and infinite d.f. This value was significant at the .001 level. The SES components measured were analyzed separately and yielded the following results. The education score (Educ5) yielded an F value of 23.5087 at 4 and infinite d.f. This value was significant at the .001 level.

The income measure also yielded significant results at the .001 level. The income F value was 23.3329 at 4 and infinite d.f. Occupational prestige was also significant at the .001 level. The F value at 4 and infinite d.f. was 16.32.

A multiple linear regression assessment of the relationship of SES to depression scores yielded similar results. The overall F score of SES, when the other sociodemographic variables and LCE were held constant, resulted in a value significant at the .001 level. A separate regression analysis of the SES components, with the other sociodemographic variables and LCE held constant at their mean values, resulted in the following findings: the F value of education (35.646) was significant at the .001 level; the F value of income (10.017) was significant at the .001 level; the F value (5.556) of occupational prestige seemed to be least predictive, but was still significant at the .05 level. Hypothesis 4. This hypothesis predicted a positive relationship between the number of different types of LCE which persons experience and the degree of social-psychiatric symptomatology they manifest. Essentially, if persons do experience life-crisis events they will exhibit more symptomatology. This hypothesis was supported by the findings.

- a) Anxiety Symptoms - In a multiple linear regression analysis of the effect of LCE on anxiety symptom scores, during which other sociodemographic relationships were held constant, a significant relationship was found. This analysis was based on the LCE reported as experienced during the past year, as well as those in the period 1 to 2 years ago. Both measures yielded F values at the .001 level, as can be seen in the appendix.

Life-crisis events, in and of themselves, accounted for less variance in anxiety symptom scores than did SES. However, when the components of SES were separated and included in another equation, LCE accounted for more variance than did any of the components. Moreover, being female, middle aged or older, and of lower SES, would increase the probability that a person would exhibit symptomatology. The statuses of race and residence were not significant.

- b) Anxiety Function - A similar analysis of the anxiety function indices found a significant relationship between the experiencing of LCE and having anxiety symptoms to a degree that the persons find it difficult to fulfill their work and family roles. The experiencing of LCE during the preceding year or in the period 1 to 2 years ago was directly related to high anxiety function scores. This relationship was significant at the .001 level for both time periods. In contrast to the anxiety symptom measure, this analysis found age to be significantly (.001 level) inversely related to anxiety function. The status of being female was directly related at the .001 level to experiencing anxiety function symptoms when controlling for life-crisis events. Thus, LCE are themselves accounting for a significant degree of variance in symptom scores, but the combination of having one or more different types of LCE, being younger, and being female would probably result in the manifestation of a number of symptoms. As in the analysis of anxiety symptoms the variables of race and residence did not account for a significant amount of variance in scale scores. The experiencing of LCE accounted for the most variance in scale scores.

c) Depression - The experiencing of LCE accounted for a significant degree of variance in depression scale scores at the .001 level. In contrast to the previous two symptom measures, age was not significant. Being depressed was related to being female at the .001 level. The significant (.001 level) inverse relationship was present again in this index for SES. In fact, SES accounted for more variance in depression scores than did LCE. However, again when the component parts of SES were compared to the experiencing of LCE, LCE then accounted for the most variance in depression scores. This finding appears to give support to the concept of a tri-dimensional measure of social stratification.

Hypothesis 5. This hypothesis predicted that the recency with which a person experienced a LCE would be an important determinant of social-psychiatric symptomatology.

In measuring the relative amount of variance accounted for in anxiety symptoms by having experienced one's most recent LCE in the last year (LCE1) or having had his most recent event 1 to 2 years ago (LCE2), it was found that events in both of the dichotomized time frames were significant at the .001 level. The concept of recency was supported, in that the standardized betas of the more recent events accounted for a greater degree of variance in anxiety symptoms. There is little doubt that the more recent events may have been remembered with more accuracy through selective perception than were events from the more distant past. However, inherent in remembering the events is that they may have had some effect on one's existence.

In the measurement of the relationship of LCE1 and LCE2 upon anxiety function scores, it was found that both were significant at the .001 level.

As in the anxiety scale, more variance was accounted for by LCE1 than by LCE2.

A similar finding emerged for the assessment of the depression scale scores. Both LCE1 and LCE2 were significant at the .001 level.

Thus, in all three scales, LCE1 and LCE2 were directly related to symptom scores at the .001 level, and LCE1 accounted for more variance than did LCE2.

Commentary and Summary of Findings

Life-Crisis Events

1. Age was significantly inversely related to having LCE.
2. Race was not significant in and of itself in the number of LCE experienced.
3. As a group, black females experienced the most LCE, even though being a female was inversely related at a significant level to having LCE.
4. SES was significantly inversely related to the number of different LCE persons experienced.
5. The types of LCE most frequently experienced during the last year were first, death of a close friend - 17.2%; second, hospitalization of a family member - 15.9%; third, unemployment for one month - 10.6%; and fourth, death of a close family member - 10.1%.
6. Black females may have experienced the most LCE during the past year despite their being black and female because their low SES and younger-than-average age may predispose them to the experiencing of more events.
7. Whether a person resides in a rural or urban area has little, if any, bearing on the experiencing of LCE.

Differential Rates of Social-Psychiatric Symptomatology

1. Race and rural-urban residence appear to have little, if any, relationship to social-psychiatric symptomatology.

2. The status of being female appears to be strongly related to an increased probability of having generalized anxiety symptoms, specific anxiety symptoms connected with work and family roles, and depression symptoms.
3. SES is strongly inversely related to manifestation of symptoms.
4. The tri-dimensional measure of social stratification is supported as being more than three separate measures of one's social niche.
5. Age, as a variable, has an important but unanticipated influence in symptom manifestation, which is somewhat unexplained. As a person becomes older, there is a greater likelihood of anxiety symptoms, and a vastly lower probability of anxiety function symptoms. Moreover, age seems to be unrelated to depression.
6. The three Schwab-Warheit scales apparently are measuring different areas of social-psychiatric well-being.

Life-Crisis Events and Social-Psychiatric Symptomatology

1. LCE accounted for a significant degree of variance on the three indices of symptoms.
2. Although LCE and SES share some common variance, they appear to be essentially separate predictors of symptomatology.
3. Although younger persons experienced the most types of LCE, the variable of age has a direct relationship on one scale, an indirect on another, and no relationship on the third.
4. The total amount of variance accounted for in scores on the three scales by the complete model comprised of sociodemographic variables and LCE was anxiety symptom - 14%, anxiety function - 10%, and depression - 17%.

Methodological Considerations

Further analysis of LCE should consider questions not addressed in this study. These questions might include differentiating between those events which may be resultants of social-psychiatric impairment, and those events which are essentially free from personal causation. Examples of the former might be demotion or jail sentence, and the latter, the death of one's parent or child.

In addition, others might pursue concepts which may have influenced the results of this study, and for which no methodological control was taken. Social-structural coping alternatives may be more important in meeting events which require financial assistance, whereas personality structure may be a more important resource when one is confronted with events involving death. It may also be found that as a person continues on through a prolonged series of events, he may develop a type of "event immunity" which will cause impairment to reach a plateau and level off (Thomason, 1974). And, differential rates with which various groups use psychotropic drugs may artificially decrease the symptomatology scores of users.

Further research may prove more explanatory by placing greater emphasis on the social-psychological approach, involving kinship integration, the frequency of labeling by peers, and the consideration of persons' perceptions of the events they have experienced. Future studies should perhaps include an analysis of the use of community helping agencies by persons who are coping with LCE. The change in a person's relative standing within his everyday social circle following a LCE may be of greater importance than his relative standing within his city or country.

Research to be done should refine these theories, and consider the absolute number of events which occur in a person's life, as well as a weighting procedure to assess the impact of the events. This study measured only the one most recent experience of any type of event, rather than recording the absolute number of that type of event experienced.

In addition, it did not take into account the degree of trauma involved in the death of one's child, as compared with that resulting from a broken engagement.

If future research is based on a similar survey instrument, the choice of vocabulary in constructing questions is important. In this study, for example, persons in lower SES often misunderstood the word spouse, and, with surprising frequency, interpreted the concept of a spouse's unfaithfulness as a reference to the regularity of church attendance.

Traditionally, this type of social research has almost exclusively made use of linear models for analysis. In future research, basic equations should be set up to fit curves to data based on multiplicative and exponential models.

CHAPTER 5

OVERVIEW

Previously, researchers consistently found lower SES groups to be more psychiatrically symptomatic than higher SES groups. In this study, one primary goal was to discover whether this relationship existed within the area under study. If it did, could it be explained by showing the effect of the combination of persons' having more LCE and having access to fewer social-structural coping alternatives? In analyzing those groups who experienced the most types of LCE relative to the degree of their symptomatology, it can be seen that the broad social theme of this research was not supported.

Although both LCE and sociodemographic variables are significant predictors of symptomatology, they remain distinct influences despite being somewhat intertwined. The separateness of these concepts is illustrated by looking at an analysis of the groups which experienced the greatest number of LCE relative to their degree of symptomatology. As an example, age was strongly inversely related to the number of different types of LCE persons experience. However, age was directly related to only one index of symptomatology. Moreover, although black females as an aggregate grouping experienced the most types of LCE, they were not more symptomatic than other females of similar SES. In addition, even though the status of female was inversely related to the experiencing of LCE, it was directly related to having highly symptomatic scores.

Several avenues of explanation may serve to integrate these findings. Although females may exhibit a greater number of psychiatric symptoms, they may not be more psychiatrically impaired. The cultural role of women allows for a more open expression of emotions and feelings which have come to be defined as symptomatology. Conversely, the basis for the more highly symptomatic scores of females and lower SES persons may be that these groups lack power within the social structure to control their own life space and social ecology. Within this conceptual framework, Negroes' control over their social ecological milieu would have to be interpreted as being dependent on their SES rather than upon their racial identity.

The variant scores of age may suggest several interpretations. The increasing general anxiety with age may result from a prestige loss within our youth-oriented culture. However, a person may also become locked into roles and become more socially integrated. This second framework of increased social cohesion would have predicted decreased anxiety with age. Thus, this relationship requires further study.

The increased concern among youth about work and family roles may be due to their still undergoing anticipatory socialization and experiencing potentially ambiguous definitions of their position in society.

The depression in the lower SES groups, regardless of age, must be analyzed within the particular nature of depression rather than within the generic framework of mental illness. Anger turned inward is a component of depression. The expression of anger is the privilege of power. The expression of anger toward the high social strata groups may be dysfunctional for society. Thus, one possible explanation of this finding is that it may be functional for society to have depressed lower-class

persons and that depressive feelings are normative standards of behavior reinforced by those in power. Depression, clinically and socially defined as an individual pathology, may preclude the development of a collective consciousness of common plight and resultant social disruption.

As social scientists continue to focus on the question of why people feel and act the way they do, the broad perspective finds dogma confounded by science, science confusingly intertwined with metaphysics, and mental health as much a question of political morality as one of quantification.

APPENDIX

APPENDIX

Section One - Life-Crisis Events

LIFE-CRISIS EVENTS

Respondents were instructed to indicate the time during which they most recently experienced any event, in the following format:

0. Never
1. Less than 1 year ago
2. 1-2 years ago
3. 3-4 years ago
4. 5 or more years ago
7. Don't know
8. Not answered
9. Not applicable

Life-Crisis Events Listing

1. Death of child
2. Death of spouse
3. Jail sentence
4. Death of close family member (parent, sibling)
5. Spouse unfaithful
6. Major financial difficulties (very heavy debts, bankruptcy)
7. Business failure
8. Fired
9. Miscarriage or stillbirth
10. Divorce
11. Marital separation due to argument
12. Court appearance for serious legal violation
13. Unwanted pregnancy
14. Hospitalization of family member (serious illness)
15. Unemployed for one month
16. Death of close friend
17. Demotion
18. Major personal physical illness (hospitalization or one month off work)
19. Began extramarital affair
20. Loss of personally valuable object
21. Law suit
22. Academic failure (important exam or course)
23. Child married against respondent's wishes
24. Break engagement
25. Increased arguments with spouse
26. Increased arguments with resident family member
27. Increased arguments with fiance or steady date

Life-Crisis Events Cont'd

- 28. Take a large loan (more than one-half of a year's earnings)
- 29. Son drafted
- 30. Arguments with boss or co-worker

SCHWAB-WARHEIT SCALES OF SOCIAL-PSYCHIATRIC SYMPTOMS

Except for item 7 in the Depression Scale, responses to these questions were gathered in the following format:

- 5 All the time
- 4 Often
- 3 Sometimes
- 2 Seldom
- 1 Never
- 8 Not answered
- 9 Not applicable

The Anxiety Symptom Scale

This scale consists of the following 12 items:

- 1. Do your hands ever tremble enough to bother you?
- 2. Are you ever troubled by your hands or feet sweating so that they feel damp and clammy?
- 3. Have you ever been bothered by your heart beating hard?
- 4. Have you ever been troubled by "cold sweats"?
- 5. Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?
- 6. Do you ever have loss of appetite?
- 7. Has ill health affected the amount of work (housework) you do?
- 8. Do you ever feel weak all over?
- 9. Do you ever have spells of dizziness?
- 10. Have you ever been bothered by shortness of breath when you are not exerting yourself?
- 11. For the most part, do you feel healthy enough to carry out the things that you would like to do?

The Anxiety Symptom Scale (Cont'd)

12. During the last year, have you ever had periods of days or weeks when you couldn't take care of things because you couldn't get going?

The Anxiety Function Scale

This scale contains the following items:

1. During the last year, did worry or nervousness get you down physically?
2. During the last year, did worry or nervousness cause problems with your family life?
3. During the last year, did worry or nervousness interfere with your social activities?
4. During the last year, did worry or nervousness cause you to stay at home or in bed?
5. During the last year, were you unable to do your usual work because of worry or nervousness?
6. In the last year, how often did you feel that you might have a nervous breakdown or that you might lose your mind?
7. In the last year, did this feeling get you down physically?
8. In the last year, has this feeling caused problems with your family/personal life?
9. In the last year, did this feeling interfere with your social activities?
10. In the last year, have you ever had to stay at home or in bed because of this feeling?
11. In the last year, were you unable to do your usual work at any time because of feeling that you might have a nervous breakdown?

Depression Scale

This scale consists of the following 18 items:

1. Do you feel in good spirits?
2. Do you sometimes wonder if anything is worthwhile anymore?

Depression Scale (Cont'd)

3. During the last year, how often would you say things don't turn out the way you want them to?
4. In the last year, how often have you had crying spells or felt like it?
5. In the last year, how often have you felt you don't enjoy doing things anymore?
6. How often have you felt lonely?
7. How does the future look to you? Possible responses were:
 - 1 Excellent
 - 2 Good
 - 3 Fair
 - 4 Poor
 - 5 Bad
8. In the last year, how often have you felt that life is hopeless?
9. How often do you feel that people don't care what happens to you?
10. Do you tend to feel tired in the morning?
11. Do you have any trouble getting to sleep and staying asleep?
12. Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?
13. Do you ever have loss of appetite?
14. During the last year, have you ever had periods of days or weeks when you couldn't get going?
15. In the last year when things didn't turn out, how often would you say you blamed yourself?
16. In the last year, how often did you think about suicide?
17. In the last year, how often did you have trouble with sleeping?
18. Life is so difficult these days that there is no use trying to get ahead. Do you feel this way?

LIFE-CRISIS EVENTS EXPERIENCED

	Never	Less than 1 Year Ago	1-2 Years Ago
Death of a Child	1458 (80.6)	17 (0.9)	23 (1.3)
Death of a Spouse	1401 (77.4)	31 (1.7)	43 (2.4)
Jail Sentence	1934 (95.5)	20 (1.0)	13 (0.6)
Death of Close Family Member	408 (20.1)	205 (10.1)	193(9.5)
Spouse Unfaithful	1592 (89.4)	16 (0.9)	20 (1.1)
Major Financial Difficulties	1734 (85.8)	94 (4.7)	26 (1.3)
Business Failure	1925 (96.2)	13 (0.6)	11 (0.5)
Fired	1891 (93.9)	13 (0.6)	10 (0.5)
Miscarriage, Stillbirth or Abortion	1577 (79.4)	6 (0.3)	12 (0.6)
Divorce	1384 (76.4)	24 (1.3)	36 (2.0)
Marital Separation Due to Argument	1496 (82.4)	44 (2.4)	33 (1.8)

	Never	Less than 1 Year Ago	1-2 Years Ago
Court Appearance			
Legal Violation	1954 (96.5)	12 (0.6)	10 (0.5)
Unwanted Pregnancy	1883 (95.0)	7 (0.4)	7 (0.4)
Hospitalization of Family Member	856 (42.4)	321 (15.9)	210 (10.4)
Unemployed for One Month	1429 (72.0)	211 (10.6)	86 (4.3)
Death of Close Friend	930 (46.4)	345 (17.2)	225 (11.2)
Demotion	1974 (98.6)	10 (0.5)	4 (0.2)
Major Physical Illness	1284 (63.5)	173 (8.6)	103 (5.1)
Begin Extramarital Affair	1743 (96.6)	14 (0.8)	9 (0.5)
Loss of Personally Valuable Object	1671 (82.9)	83 (4.1)	48 (2.4)
Law Suit	1889 (93.2)	36 (1.8)	23 (1.1)
Academic Failure	1875 (93.5)	12 (0.6)	13 (0.6)
Child Married Against R's Wishes	1427 (90.1)	8 (0.5)	27 (1.7)
Break Engagement	1835 (91.7)	17 (0.8)	23 (1.1)

	Never	Less than 1 Year Ago	1-2 Years Ago
Increased Arguments with Spouse	1499 (83.1)	74 (4.1)	40 (2.2)
Increased Arguments with Family Member	1828 (92.7)	68 (3.4)	21 (1.1)
Arguments with Fiance or Steady Date	1853 (95.1)	35 (1.8)	17 (0.9)
Take a Large Loan	1445 (71.8)	119 (5.9)	84 (4.2)
Son Drafted	1350 (88.1)	5 (0.3)	7 (0.5)
Arguments with Boss or Co-Worker	1754 (88.9)	104 (5.3)	29 (1.5)

THE NUMBER OF LIFE-CRISIS EVENTS EXPERIENCED
BY VARIOUS SOCIODEMOGRAPHIC GROUPS

<u>EDUCATION</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
Grade School	1.104	1.230	528
Some High School	1.156	1.318	422
H.S. Graduate	.973	1.201	587
Some College or Trade	1.132	1.315	302
College Graduate	.829	1.004	158
	<u>1.059</u>	<u>1.241</u>	<u>1997</u>

$F = 3.1686$, at 4 and infinite degrees of freedom
Significant at the .05 level

<u>INCOME IN DOLLARS</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
0 - 2,999	1.257	1.452	214
3,000 - 4,999	1.012	1.260	327
6,000 - 9,999	1.048	1.259	402
10,000 - 14,999	.968	1.176	374
15K +	1.022	1.067	318
	<u>1.043</u>	<u>1.235</u>	<u>1635</u>

$F = 2.0326$ at 4 and infinite degrees of freedom
The result is not significant

<u>OCCUPATIONAL PRESTIGE</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
0 - 19	1.349	1.415	304
20 - 39	1.046	1.227	713
40 - 59	1.009	1.365	221
60 - 79	.998	1.156	415
80 - 99	.915	1.085	376
	<u>1.053</u>	<u>1.240</u>	<u>2029</u>

$F = 5.82$ at 4 and infinite degrees of freedom
This result is significant at the .001 level

<u>SES</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
Lowest Q	1.206	1.386	320
Second Q	1.129	1.295	433
Third Q	.997	1.163	582
Fourth Q	1.015	1.268	469
Highest Q	.916	1.003	225
	<u>1.053</u>	<u>1.240</u>	<u>2029</u>

$F = 2.7448$ at 4 infinite degrees of freedom
This result is significant at .05 level

<u>AGE (A26)</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
16 - 22	1.559	1.476	204
23 - 29	1.318	1.456	245
30 - 44	1.142	1.356	444
45 - 59	1.046	1.192	461
60 +	.753	.908	671
	<u>1.054</u>	<u>1.240</u>	<u>2025</u>

F = 22.6241 at 4 and infinite degrees of freedom
This result is significant at the .001 level

<u>RACE-SEX</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
White Male	1.083	1.311	745
White Female	.946	1.125	1012
Black Male	1.250	1.250	100
Black Female	1.425	1.460	160
	<u>1.050</u>	<u>1.238</u>	<u>2017</u>

F = 8.4279 at 4 and infinite degrees of freedom
This result is significant at the .01 level

<u>RESIDENCE</u>	<u>MEAN NUMBER OF EVENTS</u>	<u>S.D.</u>	<u>N</u>
Farm	.972	1.095	72
Rural Non-Farm	1.050	1.291	337
In town	1.060	1.234	1606
	<u>1.055</u>	<u>1.238</u>	<u>2015</u>

F = .3603 at 2 and infinite degrees of freedom
This result is not significant

THE EXPERIENCING OF LIFE EVENTS ONE TO TWO YEARS AGO

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	6.	361.15640	60.19273	31.95009***
Residual	2018.	3801.83422	1.88396	

Multiple R 0.29454
R Square 0.08675
Standard Error 1.37257

Variables in the Equation

Variable	B	Beta	STD Error B	F
A26	-0.02233	-0.29425	0.00175	162.040***
SES	-0.00902	-0.15113	0.00144	39.405
Black	-0.07576	-0.01762	0.15040	0.254
Female	-0.20520	-0.07063	0.06633	9.570**
Black Female	0.29950	0.05619	0.18804	2.537
Rural	-0.09401	-0.02630	0.07703	1.489
(Constant)	3.32327			

** Significant at the .01 level
*** Significant at the .001 level

LIFE EVENTS 1-2 YRS AGO

Value	Absolute Frequency	Relative Frequency (Percent)	Adjusted Frequency (Percent)	Cumulative ADJ FREQ (Percent)
0.0	1110	54.7	54.7	54.7
1.00	578	28.5	28.5	83.2
2.00	245	12.1	12.1	95.3
3.00	62	3.1	3.1	98.3
4.00	22	1.1	1.1	99.4
5.00	9	0.4	0.4	99.9
6.00	2	0.1	0.1	100.0
7.00	1	0.0	0.0	100.0
Total	2029	100.0	100.0	100.0

LIFE-CRISIS EVENTS IN PAST YEAR
BY SES

N	Variable	Value Label	Sum	Mean	STD DEV	Sum of SQ
320	SES5	Lowest Q	386.000	1.206	1.386	612.383
433	SES5	Second Q	489.000	1.129	1.295	724.753
582	SES5	Third Q	580.000	0.997	1.163	785.993
469	SES5	Fourth Q	476.000	1.015	1.268	752.598
225	SES5	Highest Q	206.000	0.916	1.003	215.396
2029	Total		2137.000	1.053	1.240	3101.439

ANOVA TABLE

	Sum of Squares	Degrees of Freedom	Mean Square
Between Groups	16.8235	(4)	4.2059
Within Groups	3101.4297	(2024)	1.5323
Total	3118.2532	(2028)	

F= 2.7448*

* Significant at the .05 level

LIFE EVENTS IN ONE YEAR

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	6.	169.67603	28.27934	23.96340***
Residual	2018.	2381.45286	1.18011	

Multiple R 0.25790
R Square 0.06651
Standard Error 1.08633

Variables in the Equation

Variable	B	Beta	STD Error B	F
A26	-0.01482	-0.24953	0.00139	113.999***
SES	-0.00651	-0.13938	0.00114	32.788***
Black	0.02943	0.00874	0.11903	0.061
Female	-0.11764	0.05172	0.05250	5.021*
Black Female	0.18621	0.04462	0.14882	1.566
Rural	-0.07261	-0.02595	0.06097	1.418
(Constant)	2.11580			

* Significant at the .05 level
*** Significant at the .001 level

APPENDIX

Section Two - Anxiety Symptoms

ANXIETY SYMPTOM ANALYSIS

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	9.	10779.06735	1197.67415	30.69382***
Residual	1623.	63329.51930	39.02004	
Multiple R	0.38138			
R Square	0.14545			
Standard Error	6.24660			

Variables in the Equation

Variable	B	Beta	STD Error B	F
A26	0.04350	0.11971	0.00911	22.778***
Black	-0.26329	-0.01247	0.76720	0.118
Female	1.47576	0.10878	0.33482	19.427***
Black Female	-1.53733	-0.05720	0.98488	2.437
Education	-0.29257	-0.15260	0.05187	31.815***
Income	-0.00008	-0.10641	0.00002	17.323***
Prestige	-0.01077	-0.04169	0.00670	2.580
LCE1	0.96684	0.17718	0.12879	56.353***
LCE2	1.03492	0.14914	0.16184	40.895***
(Constant)	5.61441			

*** Significant at the .001 level

ANXIETY SYMPTOM ANALYSIS

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	8.	14418.06338	1802.25792	42.99212***
Residual	2016.	84512.05218	41.92066	

Multiple R 0.38176
R Square 0.14574
Standard Error 6.47462

Variables in the Equation

Variable	B	Beta	STD Error B	F
Rural	0.06910	0.00397	0.36347	0.036
A26	0.03652	0.09875	0.00860	18.039***
SES	-0.07419	-0.25502	0.00685	117.380***
Black	-0.56222	-0.02682	0.70976	0.627
Female	1.44242	0.10185	0.31377	21.134***
Black Female	-0.67673	-0.02604	0.88763	0.581
LCE1	1.02618	0.18206	0.12036	72.687***
LCE2	0.90718	0.12363	0.15357	34.897***
(Constant)	5.23184			

*** Significant at the .001 level

ANXIETY SYMPTOM SCALE SCORES BY SES

N	Variable	Value Label	Sum	Mean	STD DEV	Sum of SQ
320	SES5	Lowest Q	3152.000	9.850	9.214	27082.801
433	SES5	Second Q	3129.000	7.226	7.586	24861.820
582	SES5	Third Q	2878.000	4.945	6.141	21908.242
469	SES5	Fourth Q	1929.000	4.113	5.111	12227.012
225	SES5	Highest Q	769.000	3.418	4.123	3808.729

2029	Total		11857.000	5.844	6.989	89888.500
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ANOVA TABLE

	Sum of Squares	Degrees of Freedom	Mean Square
Between Groups	9163.0000	(4)	2290.7500
Within Groups	89888.5000	(2024)	44.4113
Total	99051.5000	(2028)	

F= 51.5803***

*** Significant at the .001 level

APPENDIX

Section Three - Anxiety Function

ANXIETY FUNCTION ANALYSIS

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	9.	2823.59619	313.73291	21.56660***
Residual	1623.	23610.05475	14.54717	
Multiple R	0.32683			
R Square	0.10682			
Standard Error	3.81408			

Variables in the Equation

Variable	B	Beta	STD Error B	F
A26	-0.01012	-0.04665	0.00556	3.309
Black	-0.09170	-0.00727	0.46844	0.038
Female	0.90911	0.11220	0.20443	19.775***
Black Female	-0.78986	-0.04921	0.60135	1.725
Prestige	-0.00635	-0.04116	0.00409	2.407
Income	-0.00002	-0.04901	0.00001	3.515
Education	-0.04552	-0.03975	0.03167	2.066
LCE1	0.74445	0.22843	0.07864	89.617***
LCE2	0.62307	0.15034	0.09881	39.760***
(Constant)	1.41307			

*** Significant at the .001 level

ANXIETY FUNCTION ANALYSIS

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	8.	3495.96347	436.99543	29.89845***
Residual	206.	29465.83208	14.61599	

Multiple R 0.32567
 R Square 0.10606
 Standard Error 3.82309

Variables in the Equation

Variable	B	Beta	STD Error B	F
Rural	-0.25528	-0.02538	0.21462	1.415
A26	-0.01548	-0.07253	0.00508	9.299**
SES	-0.01660	-0.09887	0.00404	16.859***
Black	-0.24081	-0.01990	0.41909	0.330
Female	0.92792	0.11351	0.18527	25.084***
Black Female	-0.15269	-0.01018	0.52412	0.085
LCE1	0.72667	0.22335	0.07107	104.542***
LCE2	0.58940	0.13915	0.09068	42.249***
(Constant)	1.50413			

** Significant at the .01 level
 *** Significant at the .001 level

ANXIETY FUNCTION SCALE SCORES BY SES

N	Variable	Value Label	Sum	Mean	STD DEV	Sum of SQ
320	SES5	Lowest Q	681.000	2.128	5.020	5037.746
433	SES5	Second Q	836.000	1.931	4.730	9665.918
582	SES5	Third Q	794.000	1.364	3.580	7444.773
469	SES5	Fourth Q	640.000	1.365	3.609	6096.652
225	SES5	Highest Q	232.000	1.931	2.554	1460.782
2029	Total		3183	1.569	4.032	32705.871

ANOVA TABLE

	Sum of Squares	Degrees of Freedom	Mean Square
Between Groups	265.7930	(4)	66.4482
Within Groups	32705.8711	(2024)	16.1590
Total	32971.6641	(2028)	

F= 4.1121**

** Significant at the .01 level

APPENDIX
Section Four - Depression

DEPRESSION SCALE ANALYSIS

Analysis of Variance	DF	Sum of Squares	Mean Square	F
Regression	9.	22958.85452	2550.98384	36.30956***
Residual	1623.	114026.35674	70.25654	

Multiple R 0.40939
 R Square 0.16760
 Standard Error 8.38192

Variables in the Equation

Variable	B	Beta	STD Error B	F
A26	-0.01836	-0.03716	0.01223	2.253
Black	-0.61134	-0.02130	1.02946	0.353
Female	3.37608	0.18304	0.44927	56.469***
Black Female	-1.82544	-0.04996	1.32154	1.908
Education	-0.41554	-0.15942	0.06960	35.646***
Income	-0.00008	-0.07986	0.00003	10.017**
Prestige	-0.02120	-0.06038	0.00900	5.556*
LCE1	1.62834	0.21948	0.17282	88.776***
LCE2	1.52285	0.16141	0.21716	49.178***
(Constant)	15.38720			

* Significant at the .05 level
 ** Significant at the .01 level
 *** Significant at the .001 level

DEPRESSION SCALE SCORES BY SES

N	Variable	Value Label	Sum	Mean	STD DEV	Sum of SQ
320	SES5	Lowest Q	5369.000	16.778	11.766	44161.250
433	SES5	Second Q	6469.000	14.940	9.850	41910.500
582	SES5	Third Q	6953.000	11.947	8.470	41677.375
469	SES5	Fourth Q	5141.000	10.962	7.597	27007.332
225	SES5	Highest Q	2114.000	9.396	6.550	9609.797

2029	Total	26046.000	12.837	9.317	164366.188
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ANOVA TABLE

	Sum of Squares	Degrees of Freedom	Mean Square
Between Groups	11660.8750	4	2915.2188
Within Groups	164366.1875	2024	81.2086

Total	176027.0625	2028
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F= 35.8979***

*** Significant at the .001 level

DEPRESSION SCALE SCORES BY
SES COMPONENTS

OCCUPATIONAL PRESTIGE	Mean Depression Score	STD DEV	N
0-19	15.069	10.426	304
20-39	13.971	10.028	713
40-59	11.900	8.741	221
60-79	12.178	8.385	415
80-99	10.160	7.318	376
	<hr/>	<hr/>	<hr/>
	12.837	9.317	2029

F= 16.32, at 4 and infinite d.f., significant at the .001 level

EDUCATION

Grade School	14.996	10.992	528
Some H.S.	14.209	9.544	422
H.S. Grad	11.843	7.994	587
Some Coll, Trad	11.583	8.040	302
College Grad	8.165	5.891	158
	<hr/>	<hr/>	<hr/>
	12.846	9.287	1997

F= 23.5087, at 4 and infinite d.f., significant at the .001 level

INCOME

0-2999	16.869	10.964
3000-4999	14.006	9.987
6000-9999	12.587	9.151
10000-14999	11.818	7.912
15000 +	9.708	6.777
	<hr/>	<hr/>
	12.695	9.158

F= 23.3329, at 4 and infinite d.f., significant at the .001 level

APPENDIX

Section 5 - Race - Sex Symptomatology

ANALYSIS OF VARIANCE
SOCIAL-PSYCHIATRIC SYMPTOMATOLOGY
BY RACE-SEX

ANXIETY SYMPTOM SCALE

	Mean Score	STD DEV	N
White Male	4.851	6.483	745
White Female	6.413	7.093	1012
Black Male	6.020	8.085	100
Black Female	6.900	7.456	160
	<hr/>	<hr/>	<hr/>
	5.855	6.997	2017

F= 8.5627, at 3 and infinite d.f., significant at the
.001 level

ANXIETY FUNCTION SCALE

White Male	1.067	3.289	745
White Female	1.874	4.395	1012
Black Male	1.240	3.914	100
Black Female	2.294	4.672	160
	<hr/>	<hr/>	<hr/>
	1.578	4.042	2017

F= 7.7514, at 3 and infinite d.f., significant at the
.001 level

DEPRESSION SCALE

White Male	10.681	8.153	745
White Female	13.963	9.631	1012
Black Male	12.590	9.629	100
Black Female	15.831	10.352	160
	<hr/>	<hr/>	<hr/>
	12.831	9.334	2017

F=24.5084, at 3 and infinite d.f., significant at the
.001 level

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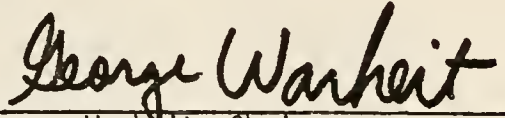
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BIOGRAPHICAL SKETCH

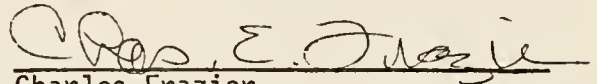
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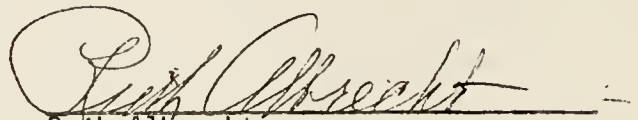
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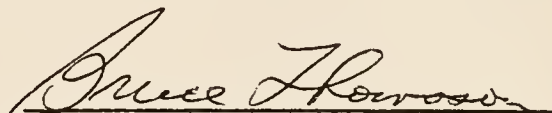


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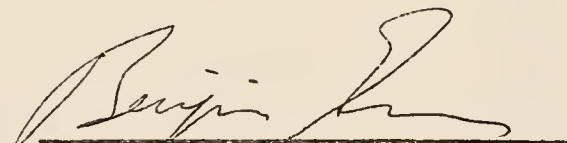
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March, 1975


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